CITY OF BURLINGTON, VERMONT
CITY COUNCIL TRANSPORTATION, ENERGY & UTILITIES COMMITTEE
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Transportation, Energy and Utilities Committee of the City Council

Thursday, March 6th, 2014 at 4:45 PM

Burlington Public Works – Front Conference Room

645 Pine Street – Burlington, VT

–AGENDA–

1. Agenda
    a. DISCUSSION
    b. ACTION
2. Public Forum
3. Minutes of 1/21/2014
    a. DISCUSSION
    b. ACTION
4. Spring Street Closure – Nicole Losch, DPW
5. Colchester/Pearl/Prospect Intersection – Nicole Losch, DPW
6. North Avenue Corridor Study – Nicole Losch, DPW
7. Bicycle & Pedestrian Action Plan – Nicole Losch, DPW
8. Adoption of the Town Road and Bridge Standards – Nicole Losch, DPW
9. Councilors' Updates
10. Adjourn

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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

Memo

Date: February 25, 2014

To: Transportation, Energy, & Utilities Committee

From: Nicole Losch, Transportation Planner

Subject: Spring Street Traffic Calming

BACKGROUND

Traffic calming & neighborhood enhancements are neighborhood-driven efforts. After a petition is received by the city, traffic data is collected to provide a baseline for assessing perceived vs. measurable traffic issues. This helps to refine the most appropriate traffic calming measures, selected from a suite of solutions approved for Burlington. Neighborhood meetings are scheduled to identify common issues and to narrow down potential improvements. The preferred concepts can then be further designed and discussed in more detail at another neighborhood meeting; solutions should not send the traffic problem onto adjacent streets that are not recommended for additional traffic volume. The final step includes a "negative poll" that is mailed to residents and solicits 1/3 opposition (or 2/3 support) for the proposal. With 1/3 opposition, a project will not be pursued and traffic calming will not be revisited for 2 years, while staff works on traffic calming projects in other neighborhoods.

SPRING STREET TRAFFIC CALMING HISTORY

In 2012 a request for traffic calming and neighborhood enhancements was submitted by residents of Spring Street, Walnut Street, and Elmwood Avenue. Two neighborhood meetings have been scheduled, with residents in clear consensus regarding the proposal to close Spring Street to motor vehicle traffic between Elmwood Avenue and Walnut Street. This proposal will reduce traffic volumes and speed on Spring Street, reduce conflicts and sight-distance issues for vehicles at the intersection of Elmwood Avenue and Walnut Street at Spring Street, and will provide an aesthetic enhancement to a neighborhood targeted for park expansion when opportunities arise.

A 30-day test of the closure was completed in 2013, and traffic data and neighborhood feedback was collected during the pilot test. The results were positive from a traffic and neighborhood perspective, so the DPW has been working with the Parks & Recreation Department regarding the potential future use of this closed section of street, directly adjacent to Dewey Park.

A neighborhood poll was initiated on February 14, 2014, and the results will be compiled on March 3, 2014 (after the poll closes on February 28, 2014).

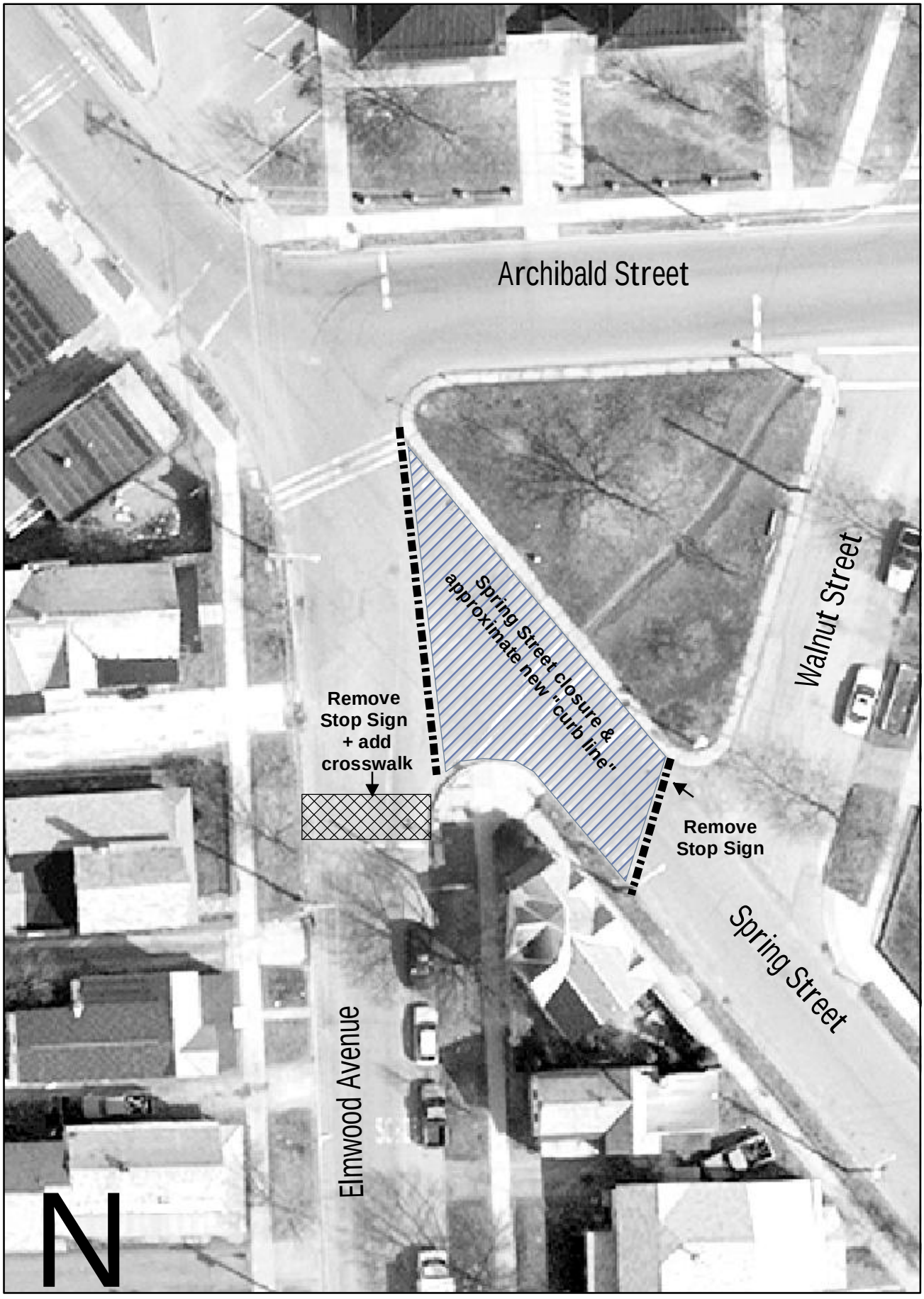
If the proposal to close Spring Street between Elmwood Avenue and Walnut Street advances through the public process, the street closure will occur in two phases. We are currently within Phase 1, led by the DPW through our traffic calming program. Phase 1 would result in non-permanent features to restrict motor vehicle access to this section of Spring Street, as well as more permanent features such as crosswalk improvements across Elmwood Avenue, consideration for additional on-street parking adjacent to the newly-closed sections of Spring Street, and removal of stop signs that would no longer be in use. The non-permanent features may include planter boxes, pavement murals, etc. and would be discussed with the neighborhood through meetings and outreach prior to implementation. Phase 2 would expand Dewey Park to the south, led by the Parks & Recreation Department.

If 2/3 of the neighborhood supports this proposal, the Phase 1 closure will occur in 2014, after consideration by the Public Works Commission (for parking changes and stop sign removal), the TEUC, and the City Council. The final design of Phase 1 will be approved by the City Engineer (with review by the Police and Fire Departments and the neighborhood). The final design of Phase 2 will be led by the Parks & Recreation Department.

RECOMMENDATION

Staff will provide a tally of the neighborhood poll results at the TEUC meeting on March 6, 2014. If 2/3 of the neighborhood supports this proposal following the closure of the neighborhood poll on February 28, 2014, we request the TEUC authorize alteration of Spring Street to restrict motor vehicle access between Elmwood Avenue and Walnut Street and work with DPW staff to bring this recommendation to the City Council for review and approval.

Encl: Spring Street traffic calming conceptual alignment


Archibald Street
Walnut Street
Spring Street closure &
approximate new "curb line"
Remove
Stop Sign
+ add
crosswalk
Remove
Stop Sign
Spring Street
Elmwood Avenue
N

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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

Memo

Date: February 25, 2014

To: Transportation, Energy, & Utilities Committee

From: Nicole Losch, Transportation Planner

Subject: Colchester Avenue / Pearl Street / Prospect Street Intersection Scoping Update

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BACKGROUND

In 2011 the Colchester Avenue Corridor Study was completed and the report adopted by the City Council. The 2011 report includes numerous recommendations to improve the safety and mobility for travelers along Colchester Avenue, including the need for additional scoping to identify long-term improvements to the intersection of Colchester Avenue / Pearl Street / Prospect Street.

At the request of the DPW, the Chittenden County Regional Planning Commission (CCRPC) advanced this scoping study in 2012. The study includes public and stakeholder outreach, existing and future conditions analysis, statement of the project purpose and need, assessment of alternatives, selection of a preferred alternative, and a final scoping report. The Steering Committee for this study includes representatives of the University of Vermont, Fletcher Allen Health Care, Campus Area Transportation Management Association, Chittenden County Regional Transit Authority, Local Motion, Burlington City Council, Ward 1 Neighborhood Planning Assembly, and Burlington DPW.

In early 2013 several alternatives were developed, and the Steering Committee endorsed a pilot project to test one alternative as a short-term solution and possible long-term alternative.

PILOT PROJECT STATUS AND SCOPING STUDY UPDATE

The pilot project (Figure 1) was launched in August 2013. A round of traffic data and observations were made in October 2013, and an online survey was available from August through November 2013. The data collection measured traffic operations against 2012 measurements, as shown in Figure 2. Results of the online survey are attached.

Upon review of the pilot project performance metrics, the public comments, and general observations, the Steering Committee recommended the pilot improvements be made permanent. At their last meeting, the Public Works Commission approved the traffic regulations that will effectuate the pilot treatments as a permanent configuration. Some small adjustments will be considered by DPW in spring

2014 to improve the operations at this intersection, including relocation of the “No Left Turn” sign on the eastbound signal mast arm closer to the center of the lane (closer to the signal head), through-arrow pavement markings for northbound traffic, enhanced signal coordination with signals at Mansfield Avenue and Mary Fletcher Drive, and improved lighting at the southwest corner.

The Steering Committee has one final meeting in March 2014 to consider the various long-term alternatives and make a final recommendation. After this meeting, we anticipate returning to the TEUC with the final report for consideration and future approval by City Council.

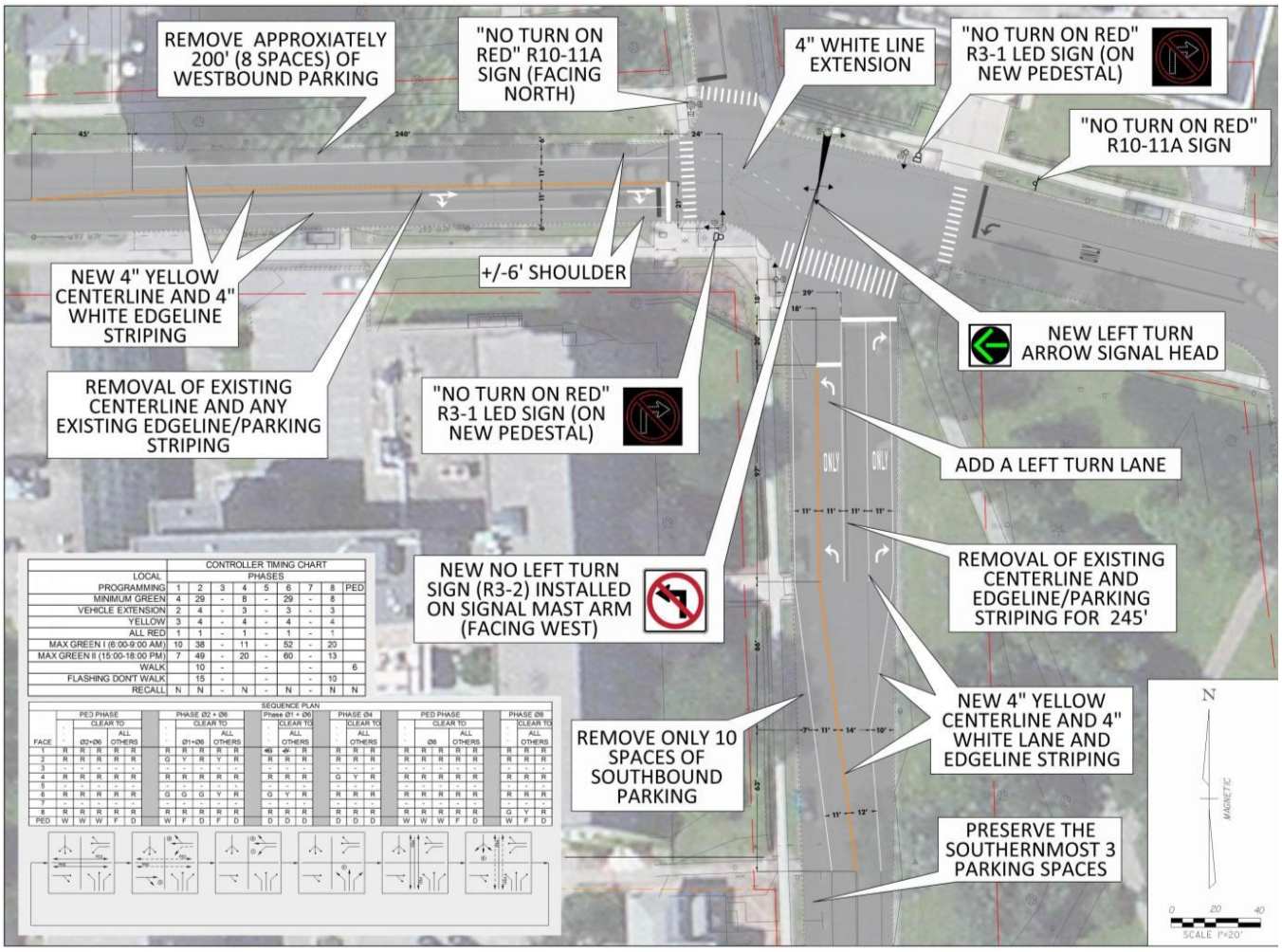


Figure 1: Pilot Project Features

METRIC	PRE-PILOT	PILOT	CHANGE	NOTES
Peak Hour Traffic Volume [1]	2,229 *(AM)* 2,618 *(PM)*	2,078 *(AM)* 2,551 *(PM)*	-7% *(AM)* -3% *(PM)*	VTrans continuous counter on VT 127 in Burlington recorded a 2% reduction from September 2012 – September 2013
Average Maximum Queue Length – All Approaches (# cars) [2]	15 *(AM)* 30 *(PM)*	30 *(AM)* 44 *(PM)*	+48% *(AM)* +46% *(PM)*	Primary increases occurred on Pearl Street approach (increase from 4 to 7 cars in AM and from 14 to 24 cars in PM)
PM Peak Cycle Length	133 seconds	120 seconds	-10%	Shorter wait times for pedestrians.
PM Peak Average Vehicle Delay[3]	71 seconds	85 seconds	+20%	Optimized timing and removal of EB left turn increased intersection capacity.
Vehicle Crashes [4]	2 / year	0	-100%	Intersection currently #25 on HCL list.
Vehicle Conflict Points	32	26	-19%	The removal of the EB left-turn removed six potential conflict points.
On-Street Parking Spaces Adjacent to Intersection	21	3	-86%	10 spaces removed on S. Prospect to accommodate NB left-turn lane. 8 spaces removed on Pearl to accommodate bike shoulders.
Leading Pedestrian Interval for East-West Pedestrians	0 seconds	6 seconds	↑	Leading pedestrian interval added as part of pilot.
Shoulder Width on Pearl Street	2-3 feet *(unmarked)*	±6 feet	+100%	Shoulders widened and striped and on-street parking removed to improve bicyclist safety.

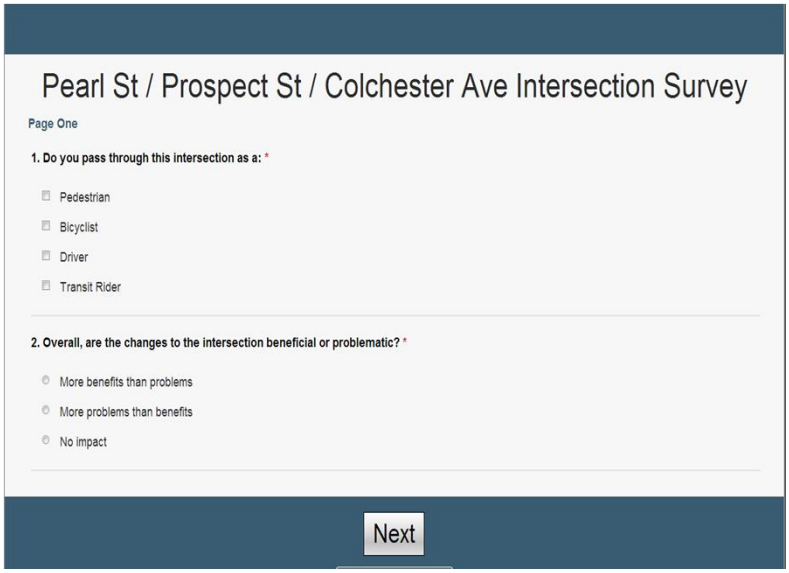
[1] Pre-pilot traffic counts conducted on October 23, 2012. Pilot phase traffic counts conducted on October 16, 2013
[2] Pre-pilot queue counts conducted on October 23, 2012. Pilot phase queue counts conducted on October 16, 2013
[3] Pilot phase volume/capacity ratio calculated using October 2012 (i.e. pre-pilot) traffic volumes.
[4] Pre-pilot crashes represent the average number of crashes occurring at the intersection between August and October from 2008 – 2012. The lack of crashes during the Pilot phase (August-October 2013) was based on information provided by the Burlington Police Department and verified by VTrans.

Figure 2: Pilot Performance Metrics 1

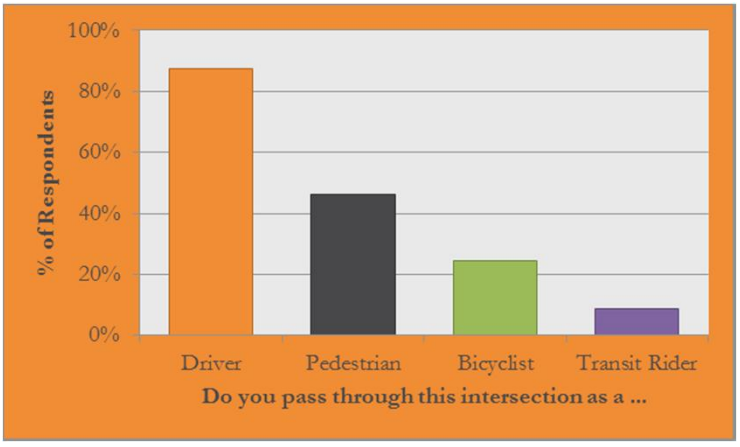
Colchester Avenue / Pearl Street / Prospect Street Pilot Project
Summary of Online Survey Results

Intersection Pilot – Public Input

Online survey ran from August 26 – November 30, 2013

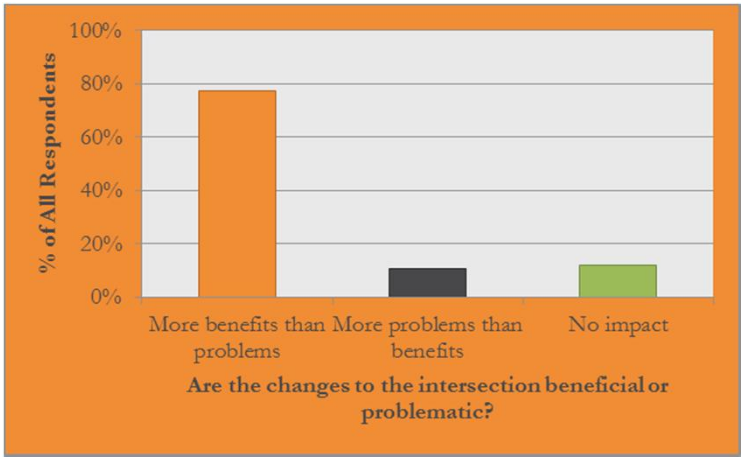


Pilot Public Input – Travel Modes



102 total completed surveys. Approximately ½ of respondents travelled through the intersection as a pedestrian.

Pilot Public Input – Overall Perception of Changes

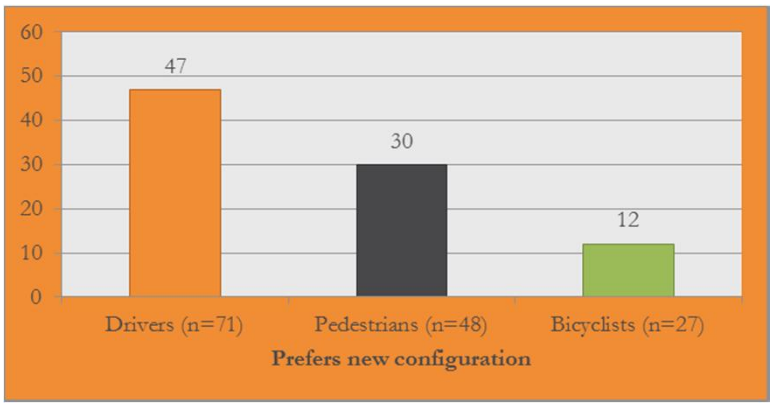


79% felt pilot changes were positive. 11% felt the changes created more problems than benefits.

Pilot Public Input – Perception of Safety

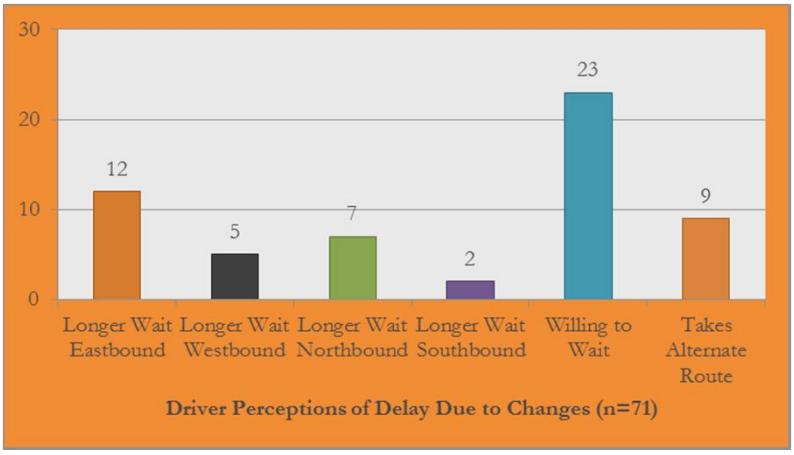
The majority of drivers on Prospect (68%) felt safer with the new configuration while only 37% of drivers on Pearl/Colchester felt safer. 56% of pedestrians and 67 % of bicyclists felt safer.

Pilot Public Input – New Configuration Preference



66% of drivers, 63% of pedestrians and 44% of the bicyclists preferred the new intersection configuration.

Pilot Public Input – Driver Perception of Delay



17% of respondents noted an increase delay on EB Pearl Street.
32% acknowledged an increased delay in general, but said they were willing to wait because the changes made the intersection safer overall.
13% indicated that they are taking alternate routes.

Pilot Public Input – Additional Comments

Open-ended Comments

Positive Aspects

- Wider shoulder on Pearl Street
- Safer, less ambiguous traffic patterns
- Reduced conflict with left-turning traffic
- Restricted right turns improve pedestrian crossing experience

Negative Aspects

- Fewer parking spaces
- Difficulty of left turns from Colchester Ave
- Lack of space to maneuver on Prospect Street due to narrower shoulders and more NB lanes
- Traffic delays and backups along Pearl Street/Colchester Avenue

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Chapin Spencer
DIRECTOR OF PUBLIC WORKS

Memo

Date: February 24, 2014

To: Transportation, Energy, & Utilities Committee

From: Nicole Losch, Transportation Planner
David Allerton, Public Works Engineer

Cc: Erin Demers, Public Works Engineer
Norm Baldwin, Assistant Director, Technical Services

Subject: Adoption of 2013 Town Road and Bridge Standards for the State of Vermont

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BACKGROUND

In 2009 the Federal Emergency Management Agency (FEMA) adopted a policy which required municipalities to adopt "codes and standards" prior to a Public Assistance disaster declaration in order for a municipality to be eligible for certain FEMA benefits related to facility upgrades that are not governed by eligible state or federal codes or standards. As a result of that policy change, VTrans and Vermont Emergency Management (VEM) began working with FEMA, regional planning commissions, the Vermont Local Roads program, the Vermont League of Cities and Towns, and Agency of Natural Resources (ANR) on the development of a standard template of minimum codes and standards. By 1999, towns began adopting road and bridge codes and standards based on the template developed by this group.

The road and bridge standards were revised in 2011 and again in 2013 to comply with modifications to 19 VSA § 309 under State Act 110 of the 2009 – 2010 Legislative session. Act 110 resulted in:

- ✓ An incentive program which allows for an increased state share of funding to municipalities receiving grants under the Town Highway Class 2 Roadway and Town Highway Structures grant programs;
- ✓ A requirement that municipalities submit an annual certification of compliance in order to be eligible for receiving the financial incentive;
- ✓ A requirement that VTrans work with municipal representatives to "revise the Agency's current recommended town road and bridge standards to include a suite of practical and cost-effective Best Management Practices (BMPs) for the construction, maintenance, and repair of all existing and future town highways in order to address pollution caused by transportation-related stormwater runoff;"

- ✓ A requirement that, beginning January 15, 2013 and every four years thereafter, VTrans, in consultation with municipal representatives and with ANR approval, review and revise, as appropriate, the town road and bridge standards to ensure the standards are protective of water quality.

Until 2011, the only changes to the 1999 codes and standards template included language modification that: 1) prohibited a municipality from using a fiscal reason as a basis for modifying the standards for a specific project, and 2) required the municipality submit an annual certification of compliance to VTrans. These changes were in response to issues associated with FEMA reimbursement. FEMA insists that towns not modify "codes and standards" for fiscal reasons and that municipalities produce a copy of their adopted codes and standards when asked by FEMA. The 2011 standards recognized the BMPs for transportation-related stormwater runoff. The 2013 standards clarified erosion control and roadside ditch construction and maintenance, included new language regarding basic side slope treatments, changed the bridge and culvert section to discuss the appropriate sizing of culverts and avoid future confusion related to FEMA reimbursement, and included a statement requiring municipalities obtain all applicable state and federal permits for any relevant work.

In order to receive an additional 10% of state funding (80% for Class 2 Roadway grants and 90% for Town Highway Structures grants) starting with State fiscal year 2015 (July 1, 2014), municipalities must:

1. Adopt roadway and bridge standards that meet or exceed the minimum requirements of the January 2013 State-approved standards, and
2. Submit an annual certification to VTrans that their adopted codes and standards meet or exceed these minimum requirements.

The State encourages municipalities to follow the State-approved standards for several reasons:

- ✓ Adherence increases the likelihood that towns' roads and bridges will survive flooding or heavy rain events;
- ✓ FEMA will use the standards when determining eligible work under the FEMA Public Assistance program during a federally-declared disaster;
- ✓ Without municipal codes and standards, FEMA generally will only provide funding that will rebuild to the conditions in place prior to the disaster if state or federal codes and standards do not apply to the project;
- ✓ Municipalities benefit from a 10% instead of 20% local match requirement for the total costs of a project funded under the Town Highway Structures and Class 2 Roadway grant programs;
- ✓ Beginning October 2014, municipalities will be eligible to receive a 12.5% instead of 7.5% state share of the FEMA-approved total project cost under the FEMA Public Assistance program;
- ✓ The standards address water quality associated with roadway runoff;
- ✓ The standards represent the best technical knowledge of the ANR and VTrans, balanced with practical considerations.

RECOMMENDATION

Public Works Engineers have reviewed the January 2013 Town Road and Bridge Standards (attached) and recommend the City adopt these standards. We request the Transportation, Energy and Utilities Committee approve the adoption and certification of compliance with these standards, and that the TEUC bring this recommendation to the City Council to adopt the January 2013 Town Road and Bridge Standards and authorize the City Engineer to annually certify compliance with these standards.